



Atty. Dkt. No. 039153-0693 (H1718)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Xiang et al.
Title: SHALLOW TRENCH
ISOLATION PROCESS
AND STRUCTURE WITH
MINIMIZED STRAINED
SILICON
CONSUMPTION

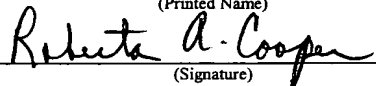
Appl. No.: 10/755,602

Filing Date: 1/12/2004

Examiner: Jack Chen

Art Unit: 2813

Confirmation No.: 9549

CERTIFICATE OF EXPRESS MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
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Roberta A. Cooper	
(Printed Name)	
	
(Signature)	

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be

appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

FEE


A credit card payment form in the amount of \$180.00 is enclosed in accordance with 37 CFR §1.17(p) to cover the fee associated with an information disclosure statement under 37 CFR §1.97(c) in the amount of \$180.00.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by the credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

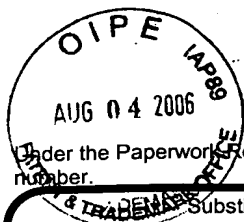
Respectfully submitted,

Date 8/4/06

By 

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Attorney for Applicant
Registration No. 48,580



MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Date Submitted: August 4, 2006

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/755,602
Filing Date	1/12/2004
First Named Inventor	Qi Xiang
Group Art Unit	2813
Examiner Name	Jack Chen
Attorney Docket Number	039153-0693 (H1718)

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	6,962,857	B1	Ngo et al.	11-08-2005	
	A2	6,706,581	B1	Bou et al.	03-16-2004	
	A3	6,673,696	B1	Arasnia et al.	01-06-2004	
	A4	6,656,749	B1	Paton et al.	12-02-2003	
	A5	6,646,322	B2	Fitzgerald	11-11-2003	
	A6	6,613,646	B1	Sahota et al.	09-02-2003	
	A7	6,566,228	B1	Beintner et al.	05-20-2003	
	A8	6,548,361	B1	En et al.	04-15-2003	
	A9	6,548,261	B1	Smith et al.	04-15-2003	
	A10	6,524,931	B1	Perera	02-25-2003	
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	A13	6,456,370	B1	Ingles, Jr.	09-24-2002	
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	A18	6,306,722	B1	Yang et al.	10-23-2001	
	A19	6,271,143	B1	Mendicino	08-07-2001	
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	A22	6,168,961	B1	Vaccari	01-02-2001	
	A23	6,150,212		Divakaruni et al.	11-21-2000	
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	A29	6,080,637		Huang et al.	06-27-2000	
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	A31	6,080,618		Bergner et al.	06-27-2000	
	A32	6,074,931		Chang et al.	06-13-2000	
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	A36	5,837,612		Ajuria et al.	11-17-1998	
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	A40	5,668,044		Ohno	09-16-1997	
	A41	5,455,194		Vasquez et al.	10-03-1995	

Examiner
SignatureDate
Considered

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: August 4, 2006 <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/755,602
				Filing Date	1/12/2004
				First Named Inventor	Qi Xiang
				Group Art Unit	2813
				Examiner Name	Jack Chen
				Attorney Docket Number	039153-0693 (H1718)
Sheet	2	of	3		

U.S. PATENT DOCUMENTS

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	A42	5,406,111		Sun	04-11-1995
	A43	5,266,813		Comfort et al.	11-30-1993
	A44	5,254,873		Poon et al.	10-19-1993
	A45	2004/0180509	A1	Wang et al.	09-16-2004
	A46	2004/0137742	A1	Ngo et al.	07-15-2004
	A47	2004/0089914	A1	Mouli et al.	05-13-2004
	A48	2004/0061161	A1	Radens et al.	04-01-2004
	A49	2003/0139051	A1	Andideh et al.	07-24-2003
	A50	2003/0049893	A1	Currie et al.	03-13-2003
	A51	2002/0098689	A1	Chong et al.	07-25-2002
	A52	2002/0045312	A1	Zheng et al.	04-18-2002

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

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		Serial Number	Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A53	EP	0 245 622	B1	Fulton et al.	11-19-1987		
	A54	GB	2 254 731	A	Hyeon et al.	10-14-1992		
	A55	WO	02/101818	A2	Currie et al.	12-19-2002		
	A56	WO	02/095818	A1	Beyer et al.	11-28-2002		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A57	International Preliminary Report on Patentability for PCT/US2004/007464, dated 01/07/2005, 8 pages.	
	A58	International Search Report; International Application No. PCT/US2004/007464; mailed 09/01/2004; 3 pgs.	

Examiner Signature	Date Considered	
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		Examiner Name	Jack Chen
Sheet	3	Attorney Docket Number	039153-0693 (H1718)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A59	Written Opinion of the International Searching Authority; International Application No. PCT/US2004/007464; International Filing Date 03-11-2004; 6 pgs.	
	A60	International Search Report for PCT/US2004/000982, 4 pages.	
	A61	Written Opinion of the International Searching Authority; International Application No. PCT/US2004/000982; International Filing Date 01-13-2004; 6 pgs.	
	A62	GHANDHI, Sorab K. "VSLI Fabrication Principles"; John Wiley and Sons; 1983; pp. 422-423	
	A63	OHKUBO, Satoshi; TAMURA Yasuyuki; SUGINO, Rinji; NAKANISHI, Toshiro; SUGITA, Yoshihiro; AWAJI, Naoki and TAKASAKI, Kanetake; "High Quality Ultra-Thin (4nm) Gate Oxide by UV/O ₃ Surface Pre-Treatment of Native Oxide"; 1995 Symposium On VLSI Technology; Digest of Technical Papers; June 6-8, 1995; Kyoto, Japan; 3 pgs.	
	A64	RIM, K., WELSER, J., HOYT, J.L., and GIBBONS, J.F., "Enhanced Hole Mobilities in Surface-channel Strained-Si p-MOSFETs", 1995 International Electron Devices Meeting TECHNICAL DIGEST, 5 pages.	
	A65	VAN ZANT, Peter, "Microchip Fabrication", McGraw Hill, 1977, pages 31 and 39	
	A66	VOSSSEN, John L., "Thin Film Processes II, Academic Press, 1991, page 333	
	A67	WELSER, J., HOYT, J.L., TAKAGI, S. and GIBBONS, J.F., "Strain Dependence of the Performance Enhancement in Strained-Si n-MOSFETs", 1994 International Electron Devices Meeting TECHNICAL DIGEST, San Francisco, CA December 11-14, 1994, 5 pages.	
	A68	WOLF, Stanley, Ph.D. and TAUBER, Richard N., Ph.D.; "Silicon Processing For The VLSI Era"; Vol. 1: Process Technology; Lattice Press; 1986; pp. 57-58, 194	

Examiner Signature	Date Considered
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